

SUPREMA

RealScan-G1 User Manual



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2. Exterior and Cable

1-1. General Information

- Scans single flat fingerprint images.
- High-quality image scanning regardless of states of finger.
- Automatically segments when scanning a flat.
- Prevents external light, halo effect, and ghost images.
- Blue LED indicator
- USB 2.0 transmits data and supplies power.
- For use only with UL Listed I.T.E computer
- Input Power : 5VDC / 500mA

1-2. Certificate

- FCC Statement

This device has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

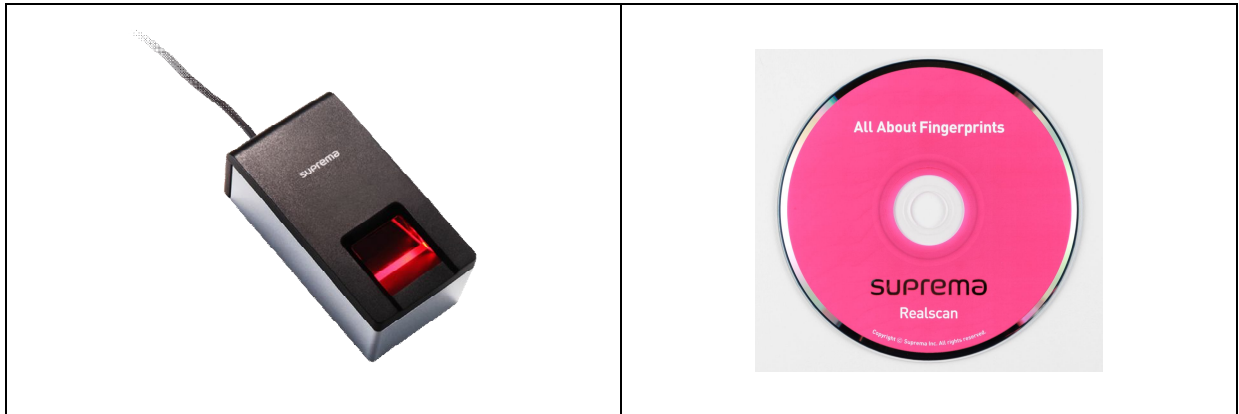
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operated the equipment under FCC rules.

1-3. Safety Notes

- Do not dismantle or alter this device. Electric shock or damage may occur. If the device was intentionally dismantled or altered by the user, repair services will not be provided.
- Do not use this device in places where flammable or explosive gas may be in the air. A fire or explosion may occur.
- If there is water or foreign matter inside the device, USB cables and contact the customer support center.
- Do not leave the device in an airtight place (such as inside a vehicle), and keep the device away from heat or direct sunlight. The device's exterior or components may be affected.
- Sharp changes in temperature can generate moisture within the device and can result in poor performance. Idle period is recommended after substantial changes in temperature.

2. Exterior and Cable

1-4. Device Parts



Device Case

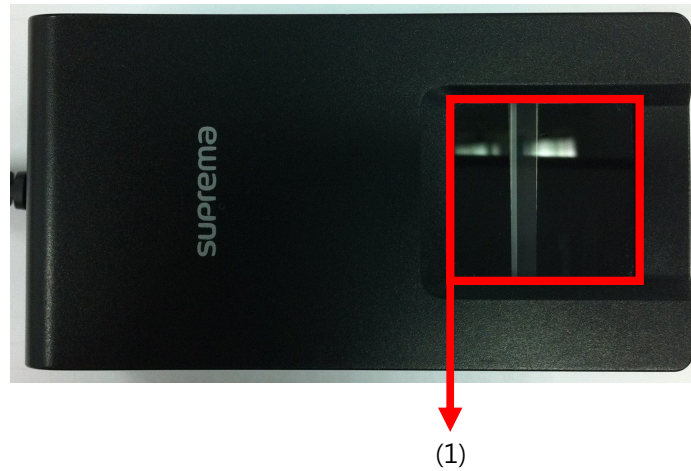
Software CD(Optional)

1-5. Specifications

Fingerprint Types	Single finger flat
Resolution	500 dpi
Platen size(W x L)	1" x 1" (25.4 x 25.4 mm), 500x500pixel
Ingress Protection	IP54
Dimension (W x L x H)	55 x 106.5 x 44.5 mm
Weight	0.18 kg (including cable)
Operating Temperature	0-70'C
Interface	USB 2.0 (data & power)
Operating Systems	Windows 7, Vista, XP, Linux(Ubuntu, Fedor)
Certificate	FBI, PIV-IQS, FIPS 201, WHQL, CE, FCC, UL, KCC

2. Exterior and Cable

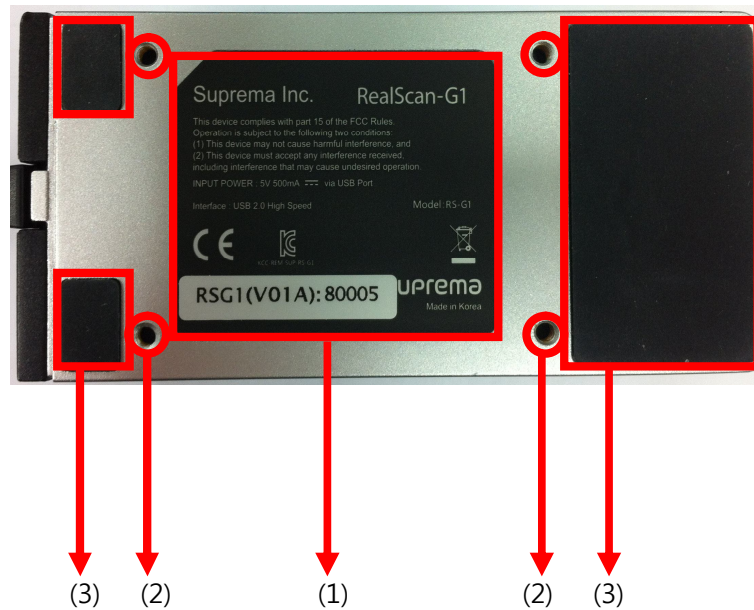
2-1. Top View



(1) Scanning Window

- Area for scanning user's fingerprints
- Blue LED indicator inside scanning window

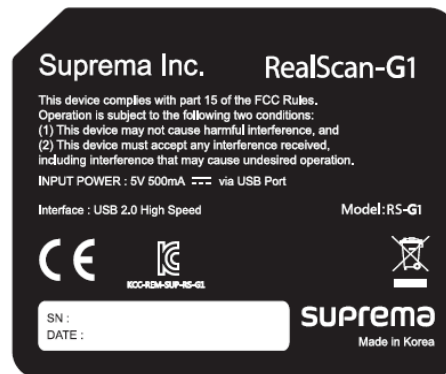
2-2. Rear View



- (1) Device label showing basic information including serial number of the device
- (2) 4-M3 taps for mounting external bracket
- (3) Rubber pads for anti-slippage

2. Exterior and Cable

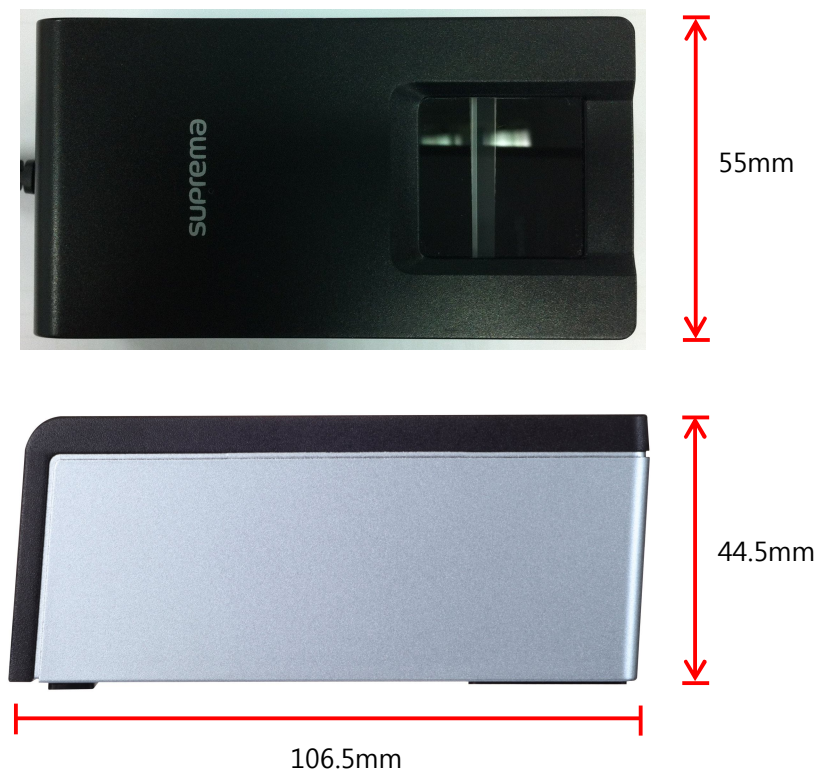
2-3. Device Label



Device Label

- Includes interface, power specifications, certification markings, and device number.

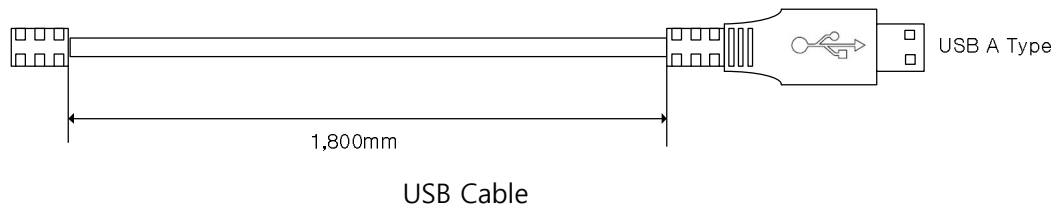
2-4. Device Exterior



- Device Dimensions : 106.5mm(L) * 55mm(W) * 44.5mm(H)
- Device Weight : 0.18Kg (including cable)

2. Exterior and Cable

2-5 USB Cable



- "A type" USB cable connected to the device through stopper with 1,800mm cable.

3. Installation

3-1. Minimum PC Requirements

	Desktop(Laptop)
CPU	Pentium 4, 2.4 GHz
OS	Windows XP or higher
VGA	Memory of 64 MB or higher (1024 x 768)
Interface	Support USB2.0 High Speed
HDD	20 GB
RAM	1 GB

3. Installation

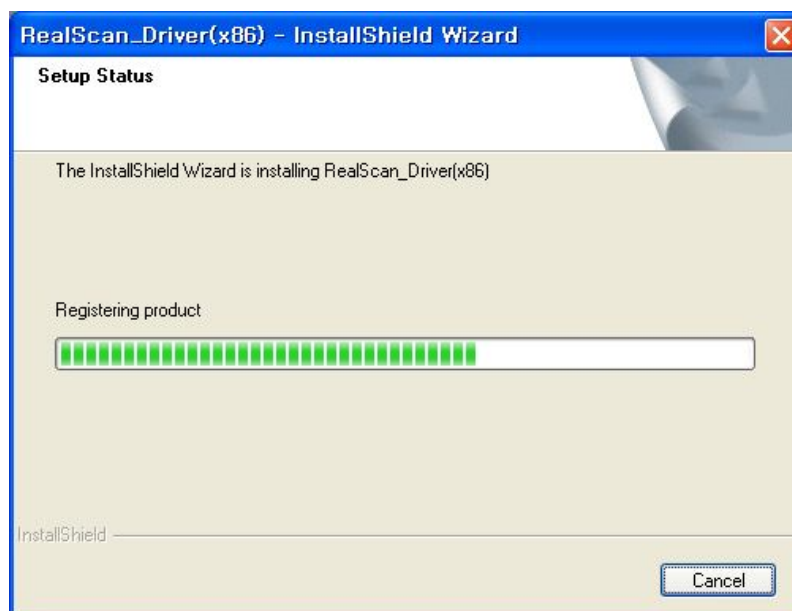
3-2. Device Driver Installation

- Windows XP / VISTA / 7



1st Step of Installation

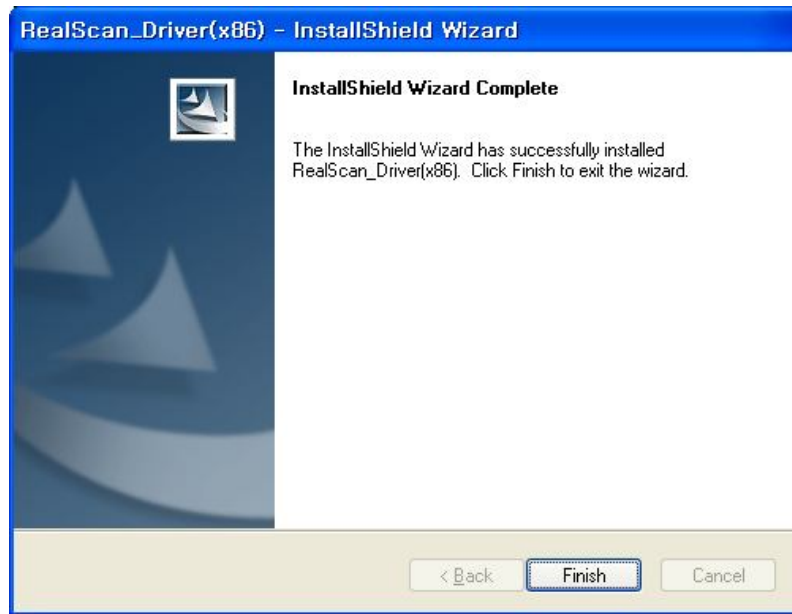
- ① Disconnect the USB cable of device from the PC before proceeding to install the program.
- ② Click "Next" if the above screen appears after running "RealScan_Driver(x86)-V1.2.0.0.exe".
 - ※ When using 64-bit OS, use "RealScan_Driver(x64)-V1.2.0.0.exe" for driver installation.



2nd Step of Installation

- ③ Device driver is being installed.

3. Installation

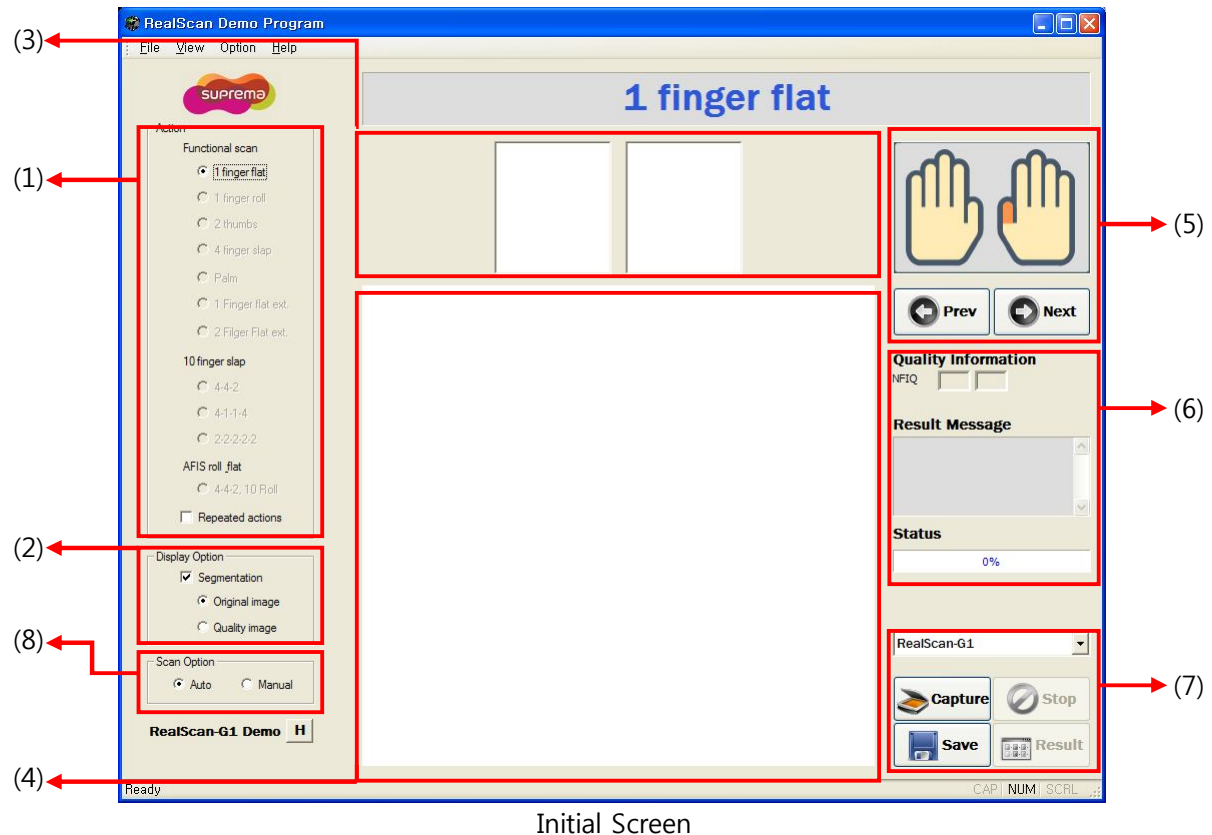


3rd Step of Installation

- ④ Click "Finish" to exit the driver installation.
- ⑤ Connect the USB cable of device to the PC, then check the installation status in Device Manager. (Refer to page 23)
 - ※ Please be advised to follow the troubleshooting guide to check and see if the installation is made successfully or not.

4. Using Software

4-1. Initial Screen



Initial Screen

- (1) Fingerprint Scan Mode – Only one scanning method is available.
 - 1 finger Flat : Scans single flats.
 - Repeated actions : When checked, the same action selected would be repeated until you press "Stop" button.
- (2) Display Option
 - Displays the scanned fingerprints. (Original image or quality image)
- (3) Displays each fingerprint from the original image scanned in area (4) above.
- (4) Area where fingerprint was scanned.
- (5) Indicates fingers to be scanned. It can be changed by pressing "Prev" or "Next" button.
- (6) Scanned fingerprints are scored, and results of the scanned fingerprints are displayed in the message window.
- (7) "Capture" and "Stop" buttons for scanning fingerprints, "Save" button to save scanned image and "Result" button to check result fingerprint images.
- (8) Scan Option
 - Auto Mode : Device automatically detects and saves fingerprint
 - Manual Mode : Capture proceeds in a manual manner.

4. Using Software

4-2. Basic Functions

- Display Option



Normal Fingerprint



Check Fingerprint Quality

- ① Normal(Original Image) : Displays the original fingerprint.
- ② Quality check (Quality Image) : Displays the quality of the scanned fingerprint.
Lighter areas indicate higher quality.

- Indicate



Fingerprint Scanning Order

- ① Indicates the finger to be scanned.
- ② "Prev" or "Next" button can be used to change scanning order.
※ "Prev" and "Next" buttons do not work during the preview.

- Quality Information

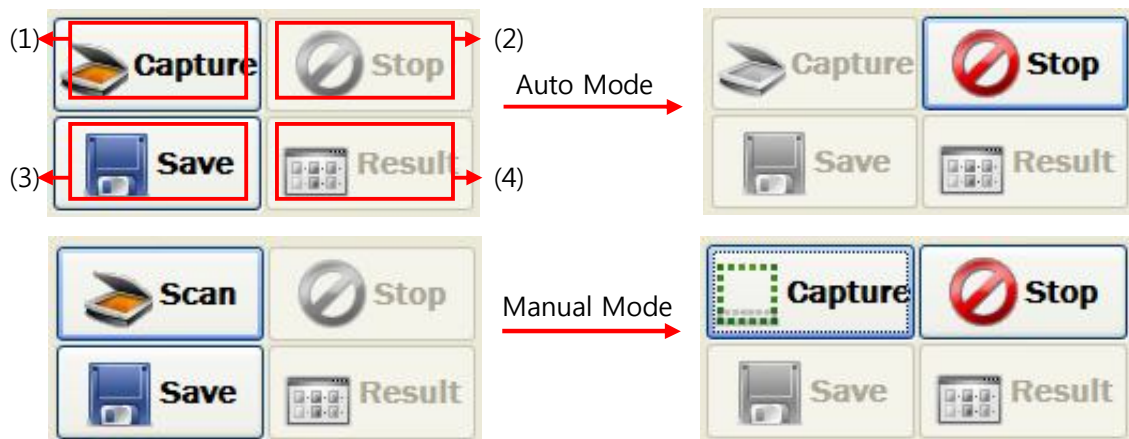


Fingerprint Information and Message window

- ① NFIQ : Displays the NFIQ results to show the quality of image.
- ② Result Message : Displays the information when scanning process is completed.
- ③ Status : Displays the scanning progress.

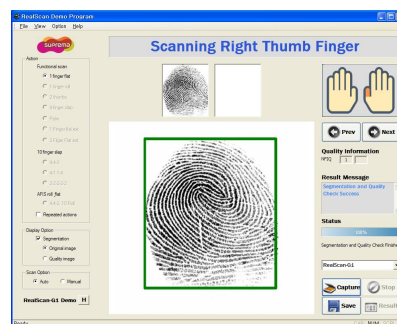
4. Using Software

- Button



- (1) "Capture" button: Used to preview or start scanning.
 - (a) Manual – "Capture" button changes into "Scan", and preview is provided. As shown on the right side, the "Scan" button is changed into "Capture" after "Scan" button is pressed. By pressing "Capture" button, scanning will be started.
 - (b) Auto – "Capture" button is activated as shown above. Scanning will be started by pressing "Capture" button.
- (2) "Stop" button: Stops scanning the fingerprint during the preview.
- (3) "Save" button: Saves the scanned image as a file.
- (4) "Result" button: Shows the scanned image with the related data.

4-3. Scanning Fingerprints Individually



Single Flat Scanning Screen

- Single Flat Scan

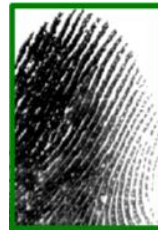
- ① Select "1 Finger Flat" in the Action menu.
- ② Select a finger to scan using the "Prev" and "Next" buttons at the upper-right of the screen.
- ③ If the "Scan" button is pressed at the lower-right of the screen, the button changes into "Capture", and then the preview image is shown.
- ④ Place the finger on the scanning area and press "Capture".

4. Using Software

4-4. Notes on Fingerprint Scanning



Top Scanning



Side Scanning

- Top Scanning: If only the top of the finger is placed on the scanning area, only the top of the finger part will be scanned as shown above.
- Side Scanning: If only the side of the finger is placed on the scanning area, and the center of the finger does not touch the scanner, only the side of the finger part will be scanned as shown above.



Blurred Image



Good Fingerprint Image

- Blurred Image: When applying too much pressure with one's finger to the scanning area, the image may become blurred as shown above.
- To scan a fingerprint successfully, place the finger at the center of the scanning area with reasonable pressure.

5. Storage and Management

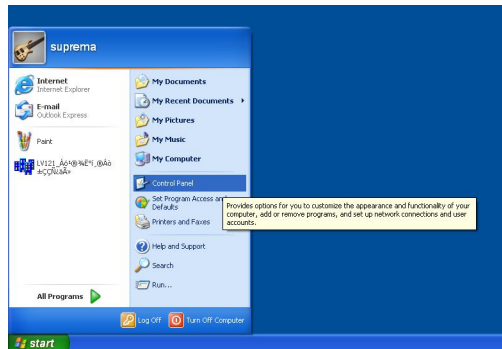
5-1. Prism Maintenance

- Clean the prism using the soft cloth provided with the device.
- If the prism is covered with foreign matter or is dirty due to repeated scanning, clean the prism with the soft cloth.
- Do not use any chemical agents such as wax, benzene, alcohol, thinner, perfume, lubricant, or cleansers.
- If the soft cloth provided with the device is not available, use cloth normally used for cleaning glasses.

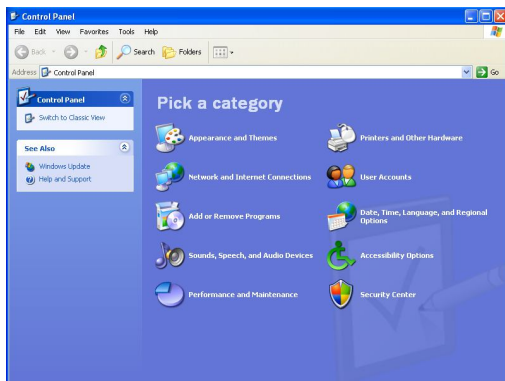
6. Troubleshooting

- Check whether the device is connected. (See below)

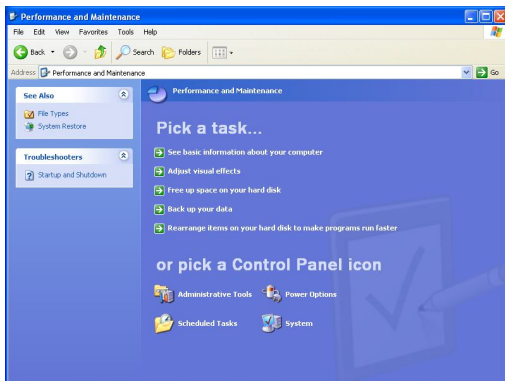
① Windows XP



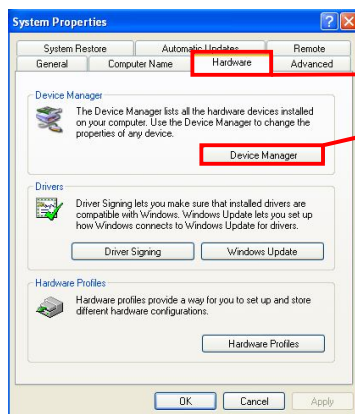
a. Click "Start" and select "Control Panel" menu.



b. Double-click "Performance and Maintenance".



c. Double-click "System".

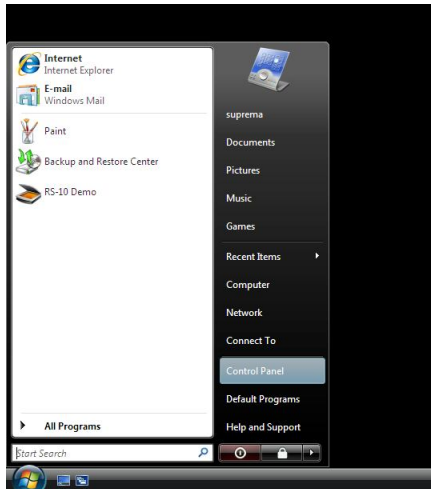


d. Follow the menu selection as shown on the left.

e. Select Device Manager – Universal Serial Bus Controller, and check whether "Suprema RealScan-G1" is connected.

6. Troubleshooting

② Windows Vista

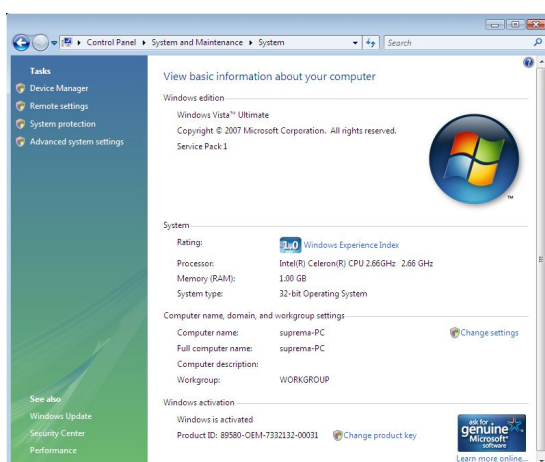


a. Click "Start" and select "Control Panel" menu.



b. Select "System and Maintenance."

c. Double-click "View Computer Details."



d. Select "Device Manager".

e. Select Device Manager – Universal Serial Bus Controller, and check whether "Suprema RealScan-G1" is connected.

6. Troubleshooting

A. In case the "RealScan-G1" is not detected under the list of Device Manager, then proceed on the following steps:

- ① Check whether the USB cable is connected properly.
 - a. Recommend to use the USB cable included with the device.
 - b. Check that the USB cable connection is tightened.
- ② Check whether the device is connected properly.
 - a. Unplug the USB cable from the PC, then replug it after 5 seconds.
 - b. Reboot your PC and check out the list of Device Manager to see if the USB driver is installed and working properly on your PC, in case the device is still not detected which may have occurred by a failure in USB recognition.

B. In case the "RealScan-G1" is detected, but still does not function properly, then proceed on the following steps:

- a. End the program and unplug the USB cable.
- b. Wait about 5 seconds and replug the cable
- c. Restart the program.

※ To obtain Technical Assistance or if the device is not properly operating even after the above troubleshooting steps, please be advised to contact our Customer Support Center at any of the following "Contact Information" provided below.

7. Customer Support

Suprema Inc.

Address : Park View Office Tower 16F, Jeongja-dong, Bundang-gu, Gyeonggi-do, South Korea

TEL : 82-31-710-4502

Fax : 82-31-783-4503

Online Customer Support : sales@supremainc.com

Website : www.supremainc.com